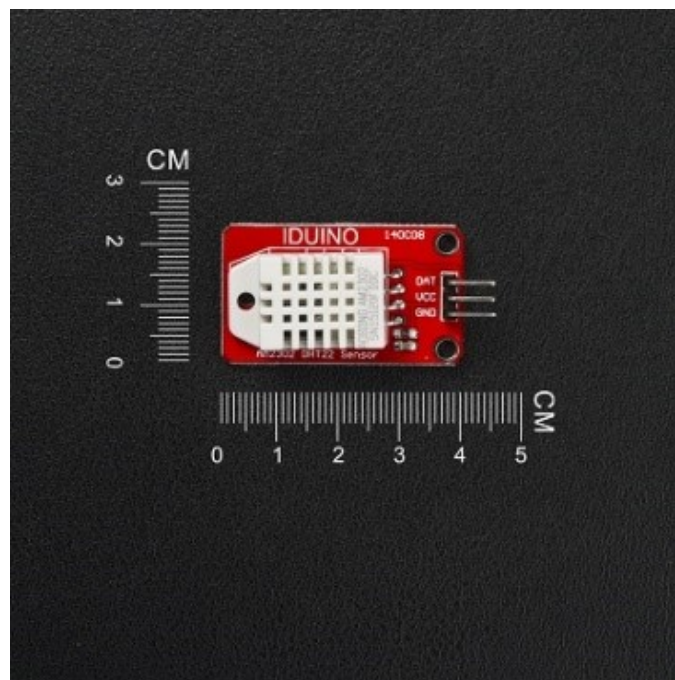# User Manual

For

AM2302 DHT22 temperature and humidity Sensor(ST1173)

Description:

AM2302 digital temperature and humidity module is a digital output signal containing a calibrated temperature and humidity combined sensor. It uses a dedicated digital modules capture technology and the temperature and humidity sensor technology to ensure that products with high reliability and excellent long-term stability. Sensor includes a capacitive humidity sensing element and a high-precision temperature measurement devices, and with a high-performance 8-bit microcontroller connected. Therefore, the product has excellent quality, fast response, anti-interference ability, high cost and other advantages. Ultra-small size, low power consumption, signal transmission distance up to 20 meters. Making it the best choice for all kinds of applications and even the most demanding applications.

Specification

- Dimension: 40 x 23mm
- Weight: 4g
- Voltage: 5V
- Port: digital two-way single bus
- Temperature range: -40-80 °C ± 0.5 °C
- Humidity: 20-90% RH ± 2% RH
- Platform: Arduino, SCM
- Need library: Adafruit DHT library

Pinout:

Pin	Description
Vcc	Power supply 5V/DC
Gnd	Ground
DAT	Digital signal pin

Example:

Wire connection as below:

```
Vcc------------5V
Gnd------------Gnd
DAT------------D2
```

***********Code Begin**********
```cpp
#include "DHT.h"
#define DHTPIN 2
#define DHTTYPE DHT22   // DHT 22  (AM2302)

DHT dht(DHTPIN, DHTTYPE);

void setup() {
  Serial.begin(9600);
  Serial.println("DHTxx test!");

  dht.begin();
}

void loop() {
  // Reading temperature or humidity takes about 250 milliseconds!
  // Sensor readings may also be up to 2 seconds 'old' (its a very slow
sensor)
  float h = dht.readHumidity();
  float t = dht.readTemperature();

  // check if returns are valid, if they are NaN (not a number) then something
went wrong!
  if (isnan(t) || isnan(h)) {
    Serial.println("Failed to read from DHT");
  } else {
    Serial.print("Humidity: ");
    Serial.print(h);
    Serial.print(" %\t");
    Serial.print("Temperature: ");
    Serial.print(t);
    Serial.println(" *C");
  }
}
```
***********Code End*********

Library download:

https://github.com/adafruit/DHT-sensor-library

https://github.com/adafruit/Adafruit_Sensor

Reference:

https://learn.adafruit.com/dht